Name of Practice: COVER CROP FOR MANAGING LIQUID OR SEMI-SOLID MANURE DCR Specifications for No. NM-7

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's Cover Crop for Managing Liquid or Semi-Solid Manure best management practices that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

Cost-share and tax credit are provided for the reduction of nutrient losses to groundwater and the establishment of vegetative cover on cropland for protection from erosion.

This practice will provide an incentive to keep cover on cropland receiving liquid or semisolid manure, which will help prevent the loss of nutrients. The primary purposes are to reduce the leaching of nitrogen to groundwater and reduce runoff of nutrients into surface waters; a secondary purpose is to reduce winter rain and wind-generated erosion. This BMP is designed to help liquid/semi-solid manure generating operations improve nitrogen and phosphorus management through applications to actively growing crops. This BMP will utilize current nitrogen applications and residual nitrogen in the first three feet of the soil profile.

B. <u>Policies and Specifications</u>

- 1. Soil loss calculations using the presently approved NRCS calculation methodology shall be documented and included in the participant file for review during spot checks.
- 2. In order to be eligible for cost-share or tax credit, producers must be fully implementing a current Nutrient Management Plan (NMP) on all agricultural production acreage contained within the field on which this practice will be implemented. The NMP must comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4VAC50-85 et seq.), and the Virginia Nutrient Management Standards and Criteria (revised July 2014); must be prepared and certified by a Virginia certified nutrient management planner; and must be on file with the local District before any cost-share payment is made to the participant. Plans shall also contain any specific production management criteria designated in the BMP practice (4VACV50-85-130G).
- 3. This practice applies only to operations generating liquid or semi-solid manure. Use of imported manure does not qualify.
- 4. This practice shall not be used for grain production.
- 5. The cover crop planted as part of this practice shall be harvested (for hay, haylage, silage, or straw) or killed (chemical or other non-tillage methods) prior to viable seed development. All remaining cover crop residue shall be left on the surface and no tillage of the cover crop is allowed post-harvest/burndown. Pasturing consistent with

- sound agronomic management is permitted as long as a 60% cover is maintained through the life of the practice. The practice will be considered complete once the cover crop has served its purpose and been killed.
- 6. The practice is intended to provide an incentive to keep a vegetative cover on cropland receiving manure, which will help prevent the loss of nutrients, by absorbing any excess nutrients from the soil and reducing surface erosion.
- 7. This practice applies only to on-farm manure generating operations and to acres necessary for application as referenced in the nutrient management plan. A 3-year nutrient management plan is required for this practice. The 3-year plan is required to reflect active nutrient management planning and implementation. The NMP shall require cropping rotation practices that are consistent with sound agronomic crop production practices (i.e. if the producer knows he will not have sufficient other acreage to make fall manure applications, then the spring/summer crop shall be planned for a harvest date that will allow adequate fall growth to utilize the nutrients and reduce soil erosion.)
- 8. Planting shall occur within 2 weeks of summer/fall harvest, but no later than the planting dates listed.
- 9. Winter tissue testing is encouraged as part of the practice for crops that will be harvested.
- 10. A fall soil nitrate test is required annually. If the 6" fall soil nitrate test is less than 30 ppm, then a manure application at planting is allowed. If fall soil nitrate test is greater than 30 ppm at planting, then the crop must be well established (4-6" tall and 50% ground cover) and temperatures conducive to N uptake at time of manure application.
- 11. A manure sample shall be taken at time of application and is a required component of this practice. Application recommendations shall be consistent with the approved NMP and a recent manure test (i.e. within 1 year).
- 12. Total fall N application shall not exceed 30 lbs/acre. Commercial P may be applied on soils having less than a medium soil test level. Total P application (manure + commercial) shall not exceed recommendation for the crop rotation in the nutrient management plan. Commercial N (not to exceed 15 lbs/acre) as part of the P fertilizer is allowed.
- 13. Spring N applications (after March 1) shall be based on tissue tests.
- 14. Soil tests must be taken within 18 months of practice sign-up.

15. Select one of following species and/or mixtures of species to plant in all soils:

Species	bu./acre
Rye (Tetraploid)	2 bu./acre
Winter Rye (not tetraploid)	2 bu./acre
Winter Barley	2 bu./acre
Winter Hardy Oats	2 bu./acre
Winter Wheat or Triticale	2 bu./acre
Winter Annual ryegrass	20 lbs./acre
Small grain seed mixes shall contain 2 bu/acre small grain	
Ryegrass mixtures shall contain 20 lbs./acre ryegrass	

Higher seeding rates are recommended for aerial seeding and non-incorporation seeding methods.

16. Seeding of all seed types must be planted by the dates listed below:

Area	Planting Date
Cities of Chesapeake & VA Beach	November 10
Coastal Plain (including the Eastern Shore)	October 25
Piedmont	October 10
Mountain and Valley	October 5

17. In all cases, this practice is subject to NRCS standard 340.

C. Rate(s)

- 1. For participants who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of \$25 per acre; is available. Participants may receive either a cost-share payment or a tax credit for implementation of this practice but not both on the same acre.
- 2. As set forth by Virginia Code, the Commonwealth currently provides a tax credit for implementation of certain agricultural best management practices as discussed in the Tax Credit Guidelines of the VACS Manual.

D. <u>Technical Responsibility</u>

Technical and administrative responsibility is assigned to qualified technical DCR and District staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE. Individuals certifying technical need and technical practice installation shall have appropriate certifications as identified above and/or Engineering Job Approval Authority (EJAA) for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

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